

Date: Tuesday, 12/5/2006 8:20:16 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BRACKET ASSEMBLY
Job Number	: 29820		
Estimate Number	: 10281		
P.O. Number	: N/A	Part Number	: D3183043
This Issue	: 12/5/2006 S.O. No. : N/A	Drawing Number	: D3183 REV C1
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : MACHINED PARTS	Drawing Revision	: C1
Previous Run	: 28828	Material	: N/A
Written By	: <u>[Signature]</u>	Due Date	: 1/5/2007
Checked & Approved By	: <u>[Signature]</u> 061205	Qty:	8 Um: Each
Comment	: Est Rev: Pick: A 04.02.18 New issue KJ/DS		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M174B2000X01500	17-4 SS Bar
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Comment: Qty.: 0.4812 f(s)/Unit Total : 3.8497 f(s)
 Material: 17-4 SS Bar per AMS 5604/5643
 (M17-4-B1.500x02.000)
 Identify for D3183-043
 Batch: M101422

2.0	BAND SAW	BAND SAW
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Comment: BAND SAW
 Cut blanks: (1.500" x 2.000") 5.500" long

SD / JML 07.01.13

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-3 as per Folio FA322 and Dwg D3183
 Identify as D3183-3

2-Deburr

3-Scribe batch number

SD / JML 07.01.14 (8)

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SD / JML 07.01.14 (8)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ ☐ Date: 07/01/19

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 12/5/2006 8:20:16 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 29820

Part Number: D3183043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

5 67/01/15 (x8)

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3121-21

Bolt B29828

ml 07/01/16 16

7.0

D3183045

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D3183-045 Bearing Ass

1330254

ml 07/01/16 16

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3183-043 as per Dwg D3183.

ml 07/01/16 8

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

MS 07/01/16 8

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 57412

07/01/18 (8)

07/01/18

11.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/01/19 (8)

Job Completion



C 07/01/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	29820
Description: Bracket		Part Number:	D3183-3
Inspection Dwg: D3183	Rev: C1	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

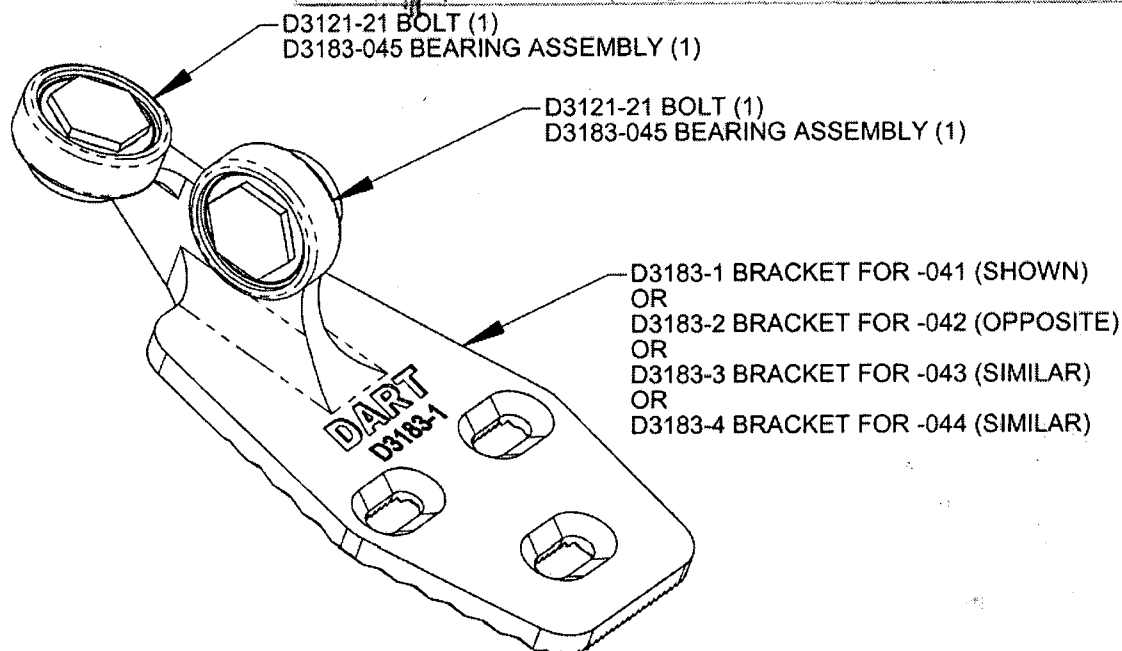
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R0.190	—			
R0.063	+/-0.010	R0.063	—			
0.182	+/-0.010	0.180	—			
0.070	+/-0.010	0.070	—			
0.100	+/-0.010	0.099	—			
Ø0.201 x 0.100	+/-0.010	Ø0.198 x 0.100	—			
0.182	+/-0.010	0.184	—			
5.32	+/-0.030	5.322	—			
5.036	+/-0.010	5.031	—			
2.120	+/-0.010	2.128	—			
1.290	+/-0.010	1.288	—			
0.365	+/-0.010	0.363	—			
0.218	+/-0.010	0.214	—			
1.030	+/-0.010	1.029	—			
1.90	+/-0.030	1.888	—			
1.012	+/-0.010	1.012	—			
Ø0.201 x 0.100	+/-0.010	Ø0.201 x 0.101	—			
0.182	+/-0.010	0.182	—			
0.786	+/-0.010	0.777	—			
Ø0.392	+0.002/-0.000	Ø0.393	—			
R0.19	+/-0.030	R0.190	—			
3.954	+/-0.010	3.954	—			
0.162	+/-0.010	0.160	—			
R0.19	+/-0.030	R0.190	—			
R0.25	+/-0.030	R0.250	—			
4.26	+/-0.030	4.260	—			
2.080	+/-0.030	2.080	—			
1.155	+/-0.010	1.155	—			
0.162	+/-0.010	0.160	—			
0.36	+/-0.030	0.360	—			
0.615	+/-0.010	0.615	—			
0.435	+/-0.010	0.433	—			
0.200	+/-0.010	0.201	—			
0.381	+/-0.010	0.382	—			
0.032	+/-0.010	0.029	—			

Measured by: <i>ML</i>	Audited by: <i>MS</i>	Prototype Approval:	N/A
Date: 07/01/12	Date: 07/01/12	Date:	N/A

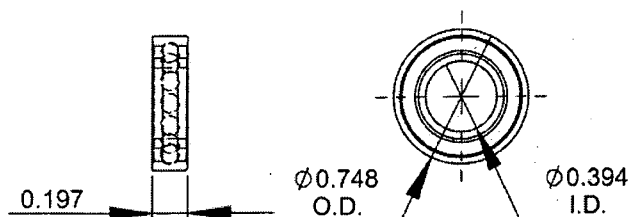
Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-043	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	06.03.09	Dwg Rev update	KJ/JLM	<i>[Signature]</i>

DART

DESIGN #	DRAWN BY IP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A.	03.01.24	NEW ISSUE	
B.	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C.	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	# 04.11.09	0.830 WAS 0.850	

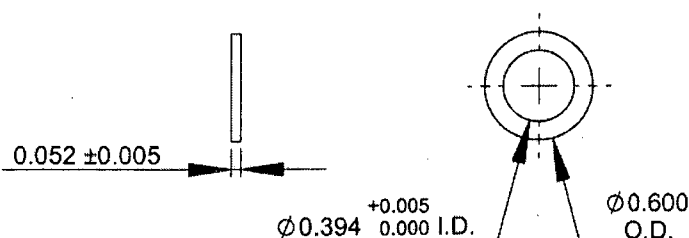
RELEASED
04.03.01 #

D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSL 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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ENGINEER
NO. 29820

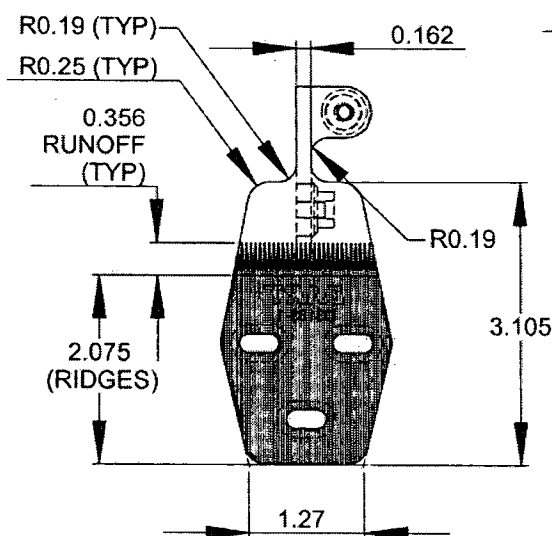
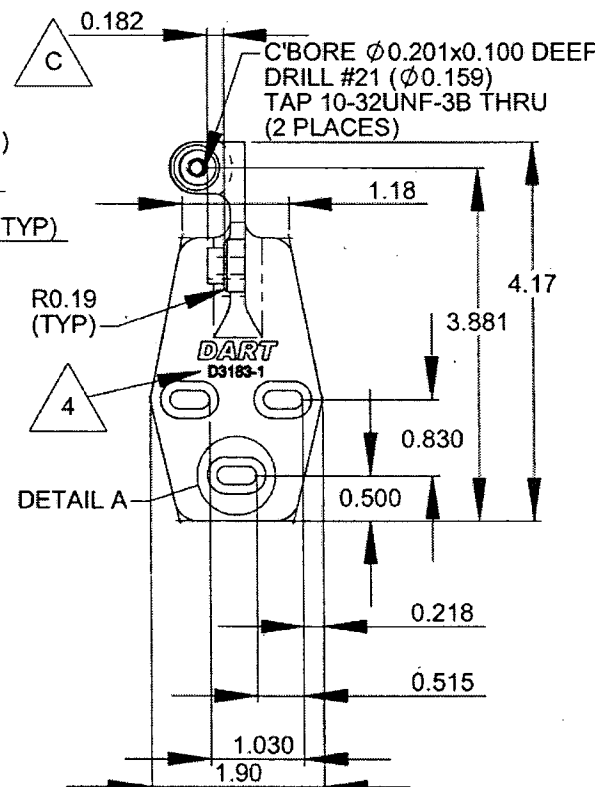
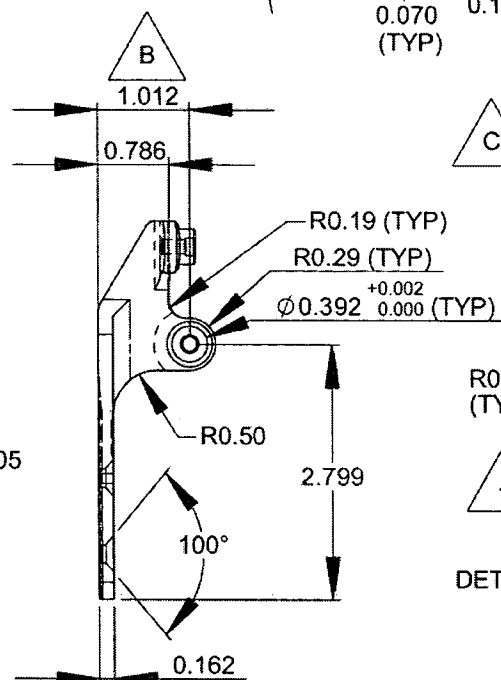
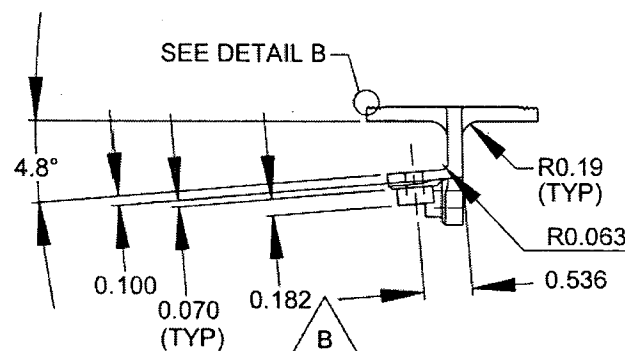
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CHECKED	APPROVED	DRAWING NO.	REV. C
DATE		D3183	SHEET 2 OF 4
04.02.17		TITLE	SCALE
		BRACKET ASSEMBLY	1:2

RELEASED
04.03.01



**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

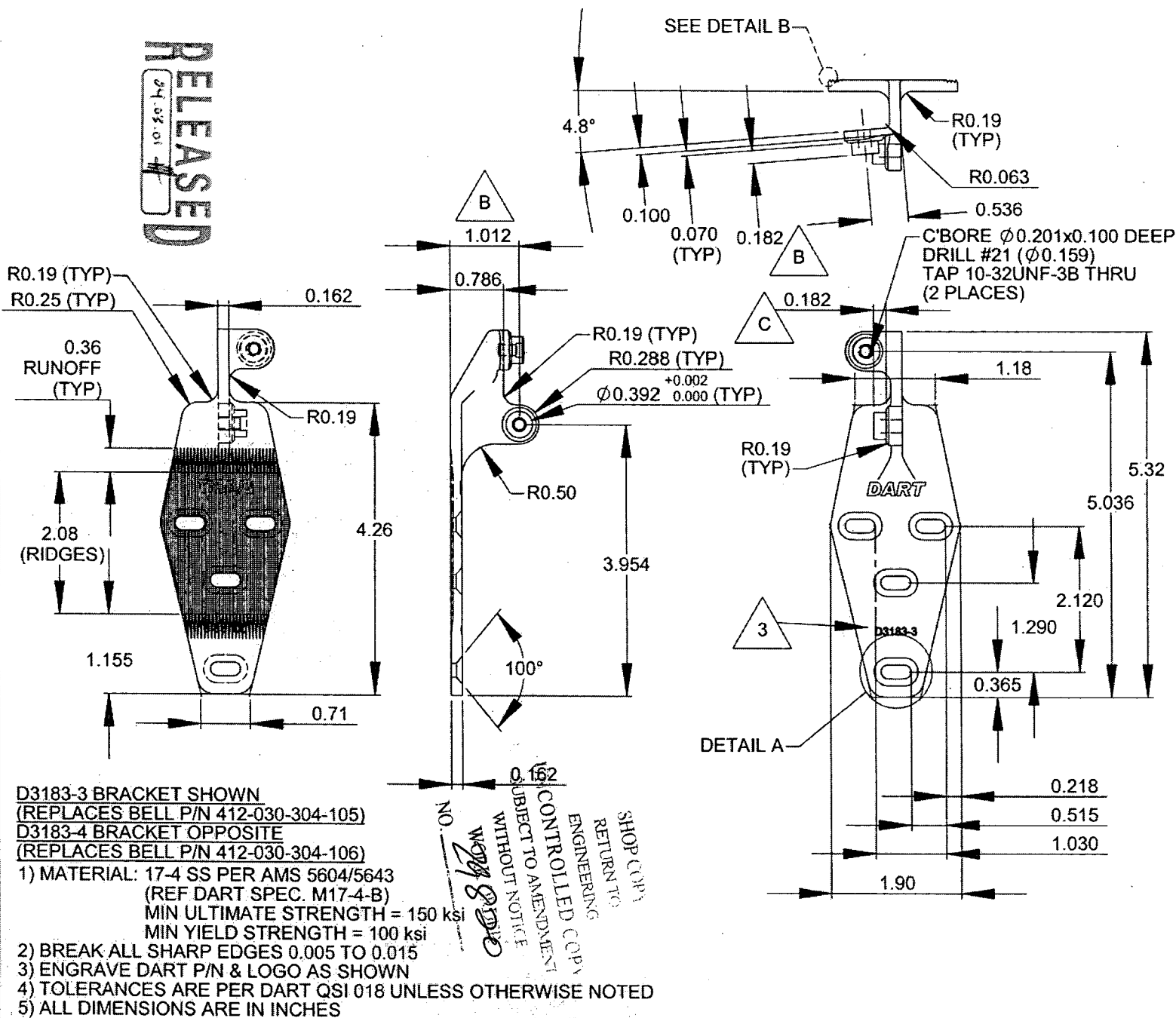
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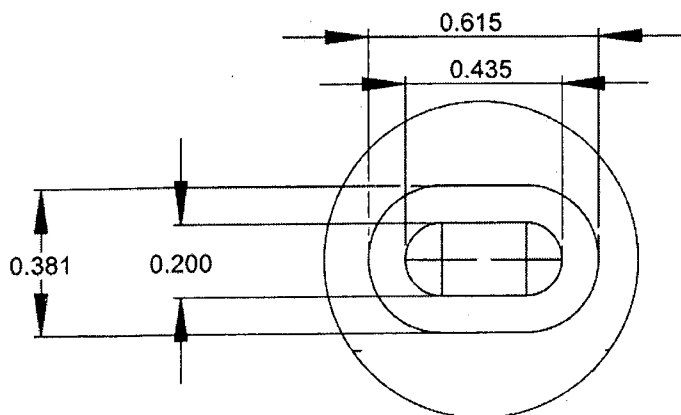
DART

QA CO
USED

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CHECKED	APPROVED	DRAWING NO.	REV. C
<i>[Signature]</i>	<i>[Signature]</i>	D3183	SHEET 3 OF 4
DATE	TITLE		SCALE
04.02.17	BRACKET ASSEMBLY		1:2

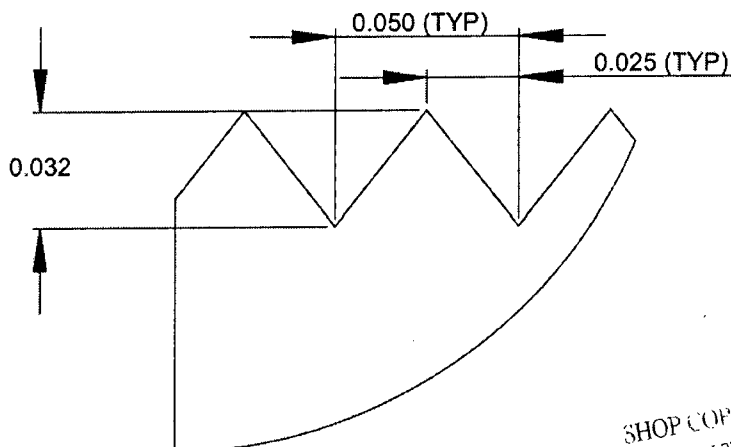


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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:1	

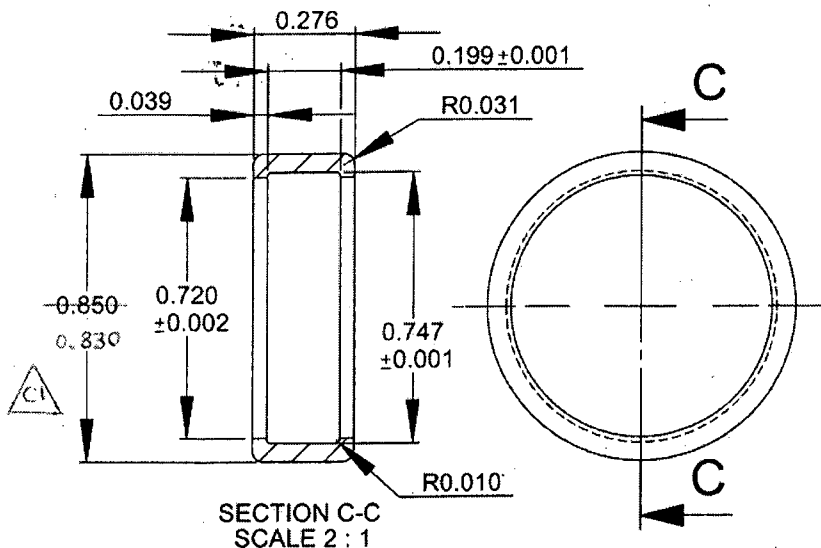


DETAIL A (2 : 1)

RELEASED
04.03.01



DETAIL B (20 : 1)



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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